

**Exercise 1**Calc. : **X**

A factory produces computer chips. A sample is taken to check the quality. The proportion of faulty chips in the sample is called  $p$ .

The sample is used to test the hypothesis  $H_0 : p = 0.08$ .

The alternative hypothesis is given by  $H_1 : p > 0.08$

If the null hypothesis is rejected, the chips will be sent back to the factory.

If the null hypothesis is not rejected, the chips will be used.

a) **Describe** the type 1 and type 2 errors in this situation.

2 marks

b) The significance level for this test is set at 2.5%.

The  $p$ -value of the test is 0.034.

**Explain** what will happen to the computer chips.

3 marks